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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/829,166	04/22/2004	Shin Kusase	115473.01	5756
25944	7590	11/05/2004	EXAMINER	
OLIFF & BERRIDGE, PLC P.O. BOX 19928 ALEXANDRIA, VA 22320			MULLINS, BURTON S	
			ART UNIT	PAPER NUMBER
			2834	

DATE MAILED: 11/05/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/829,166

Applicant(s)

KUSASE ET AL.

Examiner

Burton S. Mullins

Art Unit

2834

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 April 2004.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-4 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 22 April 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☒ Certified copies of the priority documents have been received in Application No. 10/390,906.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Priority

1. Applicant's specific reference to the prior nonprovisional application 10/390,906 in the preliminary amendment filed 22 April 2004 is acknowledged; however, since this application is now a patent, the number should also be referenced, i.e., US Patent No. 6,794,790.

Information Disclosure Statement

2. The information disclosure statements submitted on 22 April 2004 and 09 June 2004 have been considered by the examiner.

Drawings

3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include reference signs for the "magnetically conductive" and "magnetically non-conductive portions". Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

4. The disclosure is objected to because of the following informalities: Reference numbers for the “magnetically conductive” and “magnetically non-conductive portions” should be added (see p.11, lines 15-21). Appropriate correction is required.

Claim Rejections - 35 USC § 112

5. Claims 1-4 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In claim 1, recitation “a magnetic circuit means for connecting said rotor, said stator core via a second air gap” makes no sense. Presumably, the comma should be replaced with –and–. The word “connecting” is vague because it is not clear how a magnetic circuit, comprising a flux path, “connects” the stator and rotor via an air gap? Is the “connection” mechanical or via magnetic flux? In claim 2, recitation “a plurality of permanent magnets having the same polarity disposed in the circumferential direction thereof at two magnetic pole-pitches” is vague and indefinite and makes no sense. Are the magnets radially or circumferentially polarized? The syntax of “at two magnetic pole-pitches” is vague and indefinite. Does this refer to the location of the magnets or to the circumferential extent of the magnets?

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1-4, as best understood, are rejected under 35 U.S.C. 102(b) as being anticipated by Akemakou (US 6,093,992). Akemakou teaches a stator core (inner/outer) 201/211 having a three-phase armature winding 204 and a field coil 214 (Figs.3&4; c.4, lines 56-63); an inductor rotor 205 disposed opposite said stator core via a first air gap (not numbered, see Fig.3); and a magnetic circuit means for (magnetically) connecting said rotor and said stator core via a second air gap (not numbered, see Fig.3), wherein said inductor rotor 205 comprises a plurality of magnetically conductive portions (magnets 208) and magnetically non-conductive portions (windings 209 made of electrically conductive material which would inherently be a non-magnetically conductive material such as copper or aluminum, Fig.3) that are alternately disposed in the circumferential direction thereof between said first air gap and said second air gap (Fig.3).

Regarding claim 2, as best understood, Akemakou meets the limitation of permanent magnets having the same polarity in the circumferential direction disposed 2 pole pitches apart (Fig.4).

Regarding claim 3, Akemakou's field coil 214 (Fig.4) is inside the rotor 205.

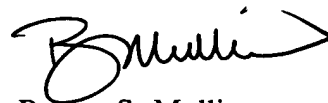
Regarding claim 4, Akemakou's invention is specifically for an alternator having a regulator (c.1, lines 30-37 and 60-64) which inherently includes a rectifier and field current control unit as part of the regulator for regulating excitation of the windings.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Burton S. Mullins whose telephone number is 571-272-2029. The examiner can normally be reached on Monday-Friday, 9 am to 5 pm. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Burton S. Mullins
Primary Examiner
Art Unit 2834